

**From:** [Granger, Michelle](#)  
**To:** [Hauber, Erin M CIV USARMY CENWK \(USA\)](#)  
**Subject:** RE: Pohatcong OU3 - few more followup questions  
**Date:** Tuesday, October 15, 2019 12:57:09 PM  
**Attachments:** [image001.png](#)

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Hi, Erin-

I'm just seeing this. Let's discuss today at 2pm today.

Best,  
Michelle-

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From: Hauber, Erin M CIV USARMY CENWK (USA) [Erin.M.Hauber@usace.army.mil]  
Sent: Thursday, October 10, 2019 6:29 PM  
To: Granger, Michelle  
Subject: Pohatcong OU3 - few more followup questions

Michelle,

I confirmed that the NJDEP permitting meeting for Ellis is Thurs, Nov 14th, so Tues, Wed, or Fri would work for a kickoff meeting, if all the other pieces fall in line.

I think the indoor air monitoring points look sufficient (pasted an image below), but let me know if you think we need one within the "clean room".

After revisiting the RD, I thought of a few more questions to chase down:

- Are SVE-1-16P and SSDS-06 through 10 currently plumbed together (hooked up to the blower) and operational? Does VIRA SSDS O&M data demonstrate that the existing subslab system's vacuum influence extends horizontally above the footprint of the TTZ or are supplemental subslab extraction points necessary? Refresher to save the reviewer time: how are the points constructed (e.g., screen or open pipe?)
- Will temperature monitoring extend above the treatment zone as currently specified in RD Section 3.7?
- Which existing VMPs will be monitored during operations, as discussed in RD Section 7.2.6?
- The currently proposed vapor monitoring program in RD Section 7.2.2 relies on points VMP-1, 2, 3 (5, 15, 25 ft bgs), located in Group C. Ideally, these data would also be available in Groups A and B. Discuss whether additional shallow vapor monitoring ports can be installed or are accessible for monitoring within Group A and B.

Have a good weekend,

Erin

100% RD text for reference:

### 7.2.2 Vapor Sampling

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To verify pneumatic capture and to monitor vapor concentrations above the TTZ for potential vapor migration beyond the pneumatic influence of the VEWs, the existing VMP-1, VMP-2, and VMP-3, installed for the SVE pilot test, will be utilized. Vapor concentrations will be measured at the three uppermost monitoring ports at each VMP (5 feet, 15 feet, and 25 feet below the building slab) using a PID. Monitoring at these three locations will be performed in conjunction with routine vapor extraction well head monitoring activities at the frequency of five times per week.

The deeper screened intervals at each VMP (>25 feet below the building slab) are not proposed to be monitored due to potential hazards associated with the release of low-pressure steam with elevated levels of TCE in vapor that could escape if the deeper ports are opened.

To determine if TCE vapor is migrating upward into the shallow zone as a result of heating, the shallow VEWs will be monitored using a PID. Readings will be collected from select VEWs throughout the TTZ in conjunction with the routine vapor sampling discussed above. If elevated PID readings (greater than baseline) are observed during ISTR operation, the affected shallow VEWs will be brought online and will be monitored regularly to determine the need for continued

operation of the shallow VEWs.

### 7.2.6 Sub-Slab Monitoring

During TCH operations, sub-slab vacuum and PID measurements will be collected from the existing VMPs located inside the Albéa facility to verify that the vapor intrusion mitigation system remains effective in preventing soil vapors from migrating to indoor air. Vacuum and PID measurements will be collected at all VMPs weekly to confirm that negative pressures are present below the floor slab of the Albéa building and that sub slab vapor concentrations are not increasing as a result of the TCH operation. Vacuum readings and vapor concentration measurements will be performed at the VMPs using the methods and procedures described in the OM&M Plan for the vapor intrusion response activities, Albéa Americas, Washington Facility (Ramboll Environ, 2015b). In the event positive pressures or significant increases in vapors beneath the floor slab are detected, the sub-slab vapor mitigation system extraction point valves will be adjusted to increase air flow and/or vacuum. In addition, the vapor mitigation system blower flow rate and inlet vacuum may also be adjusted to increase subsurface vacuum and flow throughout the SSDS extraction well network. Should further increases in sub slab vacuum be necessary during TCH, operation of the auxiliary 100 cfm vapor mitigation system and/or west wall mitigation system blowers will also be considered.

In addition to the sub-slab vapor monitoring, the shallow VEW screens collocated with the ISTR system will be monitored if temperature increases are observed in the thermocouples above the TTZ. The shallow screen installation and monitoring activities are further discussed in Sections 3.3 and 3.6.

The specific sub-slab monitoring location IDs, sample collection methods, sampling frequency, and procedures are described in further detail in the OM&M Plan contained in Appendix H.

### 3.7 Temperature Monitoring Points

The temperature monitoring points (TMPs) will be instrumented with thermocouples approximately every 10 feet in the vertical interval from just below the surface of the building slab and transitioning to every 5 feet in the vertical interval from the top to the bottom of the TTZ to enable monitoring of heating progress. Seventeen TMPs will be installed within the treatment area and one will be installed outside of the treatment area to monitor for heat migration outside of the treatment zone. The TMPs will be installed within steel casings and constructed in a vertical position. Some steel casings were installed within some of the soil borings performed during the PDI activities, and these are planned to be included as TMPs to receive installation of thermocouples for monitoring of the OU3 RA. Temperature data will be recorded via temperature logger software to a local Site PC, and intermittently uploaded to the project database for viewing. For thermocouples located within the MPA, temperature data will be measured at each location using a manual instrument or wireless monitoring and the data entered into the project database. Drawing C102 in Appendix D shows the approximate locations of the TMPs in the wellfield and

Drawing C103 provides construction details for the TMP wells.

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